

REMARKS

Applicants respectfully request re-examination of the above-identified patent application. Claims 1-3, 7-9, 11, 13, 14, 16, and 20 are pending in the present application.

In the Office Action of May 14, 2008 (hereinafter "Office Action"), Claims 1, 2, 7, 8, 13, 14, and 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,661,502, to Cheng (hereinafter "Cheng"). Claims 3, 9, and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cheng in view of Japanese Patent Application No. 05-073257, to Matsushita Electric Ind. Co., Ltd. (hereinafter "Kensuke"). Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Cheng in view of "Animation From Cartoons to the User Interface" by Bay-Wei Chang (hereinafter "Chang"). Applicants respectfully disagree with the rejections and submit that Claims 1, 2, 7, 8, 13, 14, and 20 are not anticipated by Cheng. Moreover, applicants submit that Claims 3, 9, and 16 are non-obvious over Cheng in view of Kensuke, and Claim 11 is non-obvious over Cheng in view of Chang because the cited references fail to teach or suggest certain elements of both the independent and dependent claims, as discussed in detail later in this response. While applicants disagree with the grounds of rejection cited in the Office Action, in order to advance the prosecution of the present application, Claims 1, 2, 3, 8, and 14 have been amended to clarify the subject matter that the applicants regard as the invention and to more clearly distinguish the claims from the cited references.

Pursuant to 37 C.F.R. § 1.111 and for the reasons set forth below, applicants respectfully request reconsideration and allowance of the pending claims. Prior to discussing why applicants believe that the pending claims are in condition for allowance, a brief summary of the disclosed subject matter and brief summaries of the teachings of the cited references are provided. These summaries, however, are presented solely to assist the Examiner in recognizing the differences

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between the pending claims and the cited references, and should not be construed as limiting on the disclosed subject matter.

Summary of the Disclosed Subject Matter

The present application is directed to enhancing the visual appearance of a mouse cursor path when mouse travel exceeds a predetermined threshold. In particular, rather than having large gaps between a previous and current mouse location, which may result in a user losing track of the mouse in relation to the screen, additional mouse cursor images are added to the current mouse path. These additional mouse cursor images may be added in a variety of configurations, each configuration providing a unique presentation system that assists the user in interacting with the computer. In one embodiment, if the current mouse speed exceeds the predetermined threshold, an enhanced mouse cursor is generated and displayed on the computer display.

Summary of Cheng

Cheng purportedly discloses a self-adjusting digital filter for smoothing computer mouse movement using a user-selectable inertial constant for all types of mouse movements regardless of whether the movement is fast or slow. Corrected mouse position data, or coordinates, are computed using the current actual mouse coordinates and the previous corrected mouse coordinates as adjusted by the inertial constant. A speed sensitive inertial constant, the value of which is dependent upon the values of a user-selectable speed sensitivity constant, the inertial constant, and the speed of the mouse movement, is substituted for the inertial constant so that the amount of filtering that occurs is at least partially dependent on the speed of mouse movement.

Summary of Kensuke

Kensuke purportedly discloses a cursor controller to make a cursor easy to recognize by changing the cursor to be noticeable in proportion to the cursor moving speed by controlling the cursor directing the input position on a computer screen.

Summary of Chang

Chang purportedly discloses a self user interface for the application of cartoon animation techniques as a means of making the interface easier to understand and use.

35 U.S.C. § 102(b) Rejections

As noted above, the Office Action rejected Claims 1, 2, 7, 8, 13, 14, and 20 under 35 U.S.C. § 102(b) as being anticipated by Cheng. Applicants respectfully disagree. While applicants disagree with the grounds of rejection cited in the Office Action, in order to advance the prosecution of the present application, Claims 1, 2, 3, 8, and 14 have been amended to clarify the subject matter that the applicants regard as the invention and to more clearly distinguish the claims from the cited references.

Claims 1, 8, and 14

For purposes of this discussion, independent Claims 1, 8, and 14 of the present application will be discussed together because the same distinguishing elements over Cheng are recited in each of these claims. As amended, Claim 1 recites the following:

1. A method for enhancing a mouse cursor displayed on a computer display, the method comprising:
 - obtaining the current mouse cursor speed;
 - determining whether the current mouse cursor speed exceeds a predetermined threshold, and if so:
 - generating a mouse path between an actual current and an actual previous mouse cursor locations;
 - determining at least one additional cursor location on the generated mouse path between the actual current and the actual previous mouse cursor locations on the generated mouse path; and

displaying a mouse cursor image at each additional determined cursor location on the generated mouse path in addition to displaying a mouse cursor image at the actual current and actual previous mouse cursor locations.

As amended, Claim 8 recites the following:

8. A computer-readable medium bearing computer-executable instructions which, when executed on a computing device, carry out the method comprising:

obtaining a current mouse cursor speed;

determining whether the current mouse cursor speed exceeds a predetermined threshold, and if so:

generating a mouse path between an actual current and an actual previous mouse cursor locations;

determining at least one additional mouse cursor location on the generated mouse path between the actual current and the actual previous mouse cursor locations on the generated mouse path; and

displaying a mouse cursor image at each additional determined mouse cursor location on the generated mouse path in addition to displaying a mouse cursor image at the actual current and actual previous mouse cursor locations.

As amended, Claim 14 recites the following:

14. A method for enhancing a mouse cursor displayed on a computer display, the method comprising:

obtaining mouse cursor information relating to the mouse cursor during the mouse cursor's update display cycle, the mouse cursor information including the mouse cursor's current speed;

generating a mouse path between an actual current location of the mouse cursor and an actual previous location of the mouse cursor;

determining at least one additional mouse cursor location on the generated mouse path between the actual previous and the actual current mouse cursor locations on the generated mouse path; and

displaying a mouse cursor image at each additional determined mouse cursor location on the generated mouse path in addition to displaying a mouse cursor image at the actual current and actual previous mouse cursor locations.

Applicants submit that Cheng fails to teach each and every recitation of Claims 1, 8, and 14. More specifically, Cheng does not teach "determining at least one additional cursor

location on the generated mouse path between the actual current and the actual previous mouse cursor locations on the generated mouse path," and "displaying a mouse cursor image at each additional determined mouse cursor location on the generated mouse path in addition to displaying a mouse cursor image at the actual current and actual previous mouse cursor locations."

The Office Action asserts that Cheng teaches, in Figure 3, additional cursor image locations on line 302a corresponding to the enhanced mouse track as compared to cursor image locations on line 302b corresponding to the actual mouse track because the x's on line 302a outnumber the o's on line 302b. The Office Action further cites Col. 4, line 55, to Col. 5, line 9, of Cheng in support of this assertion. Applicants respectfully disagree.

With reference to Figure 3, Cheng illustrates a speed sensitivity feature of a digital filter. The pair of lines 300 in Figure 3 illustrate the actual mouse movement verses the corrected mouse movement when the mouse is moved slowly. The pair of lines 302 in Figure 3 illustrate the actual mouse movement (302b) verses the corrected mouse movement (302a) when the mouse is moved quickly. Both pairs of lines, i.e., the lines 300 and 302, are derived by the method of operating the digital filter described in Figure 2. In this regard, Figure 2 explicitly teaches obtaining a previous cursor position, calculating a corrected cursor position, saving the corrected cursor position as the previous cursor position, and outputting the corrected cursor position. In other words, Cheng explicitly teaches calculating the corrected cursor position and outputting (or displaying) the same.

Applicants submit that Cheng does not explicitly or implicitly teach that at least one additional cursor location determined on the generated mouse path is between the actual current and the actual previous mouse cursor locations. Even if the x's on line 302a outnumber the o's on line 302b, which Cheng has shown does not occur using the method purportedly taught and

illustrated in Figure 2, it does not follow that Cheng teaches determining at least one additional cursor location on the generated mouse path. If the x's on line 302a outnumber the o's on line 302b using the method shown in Figure 2, the determined at least one additional cursor location on the generated mouse path is between the corrected current and the corrected previous mouse cursor locations. This teaching of Cheng is in contrast to the recitation in the present claims where the at least one additional cursor location on the generated mouse path is between the actual current and the actual previous mouse cursor locations.

Moreover, in instances when the mouse is moved slowly or quickly in the Cheng system, the path generated by the corrected mouse movement is displayed rather than the path generated by the actual mouse movement. This aspect of Cheng illustrated in the figures and described in the specification is also in contrast to the recitation in the present claims where displaying a mouse cursor image at each additional determined mouse cursor location on the generated mouse path is in addition to displaying a mouse cursor image at the actual current and actual previous mouse cursor locations.

As explained above, Cheng fails to teach or suggest a method for enhancing a mouse cursor comprising determining at least one additional cursor location on the generated mouse path between the actual current and the actual previous mouse cursor locations on the generated mouse path and displaying a mouse cursor image at each additional determined mouse cursor location. Accordingly, applicants respectfully request withdrawal of the pending rejection under 35 U.S.C. § 102(b) with regards to Claims 1, 8, and 14.

Claims 2, 7, 13, and 20

Claims 2 and 7 depend from independent Claim 1, Claim 13 depends from independent Claim 8, and Claim 20 depends from independent Claim 14. As discussed above, Cheng fails to teach each and every element of independent Claims 1, 8, and 14. Accordingly, for the

above-mentioned reasons, Claims 2, 7, 13, and 20 are also not anticipated by Cheng. Accordingly, applicants respectfully request withdrawal of the pending rejection under 35 U.S.C. § 102(b) with regard to Claims 2, 7, 13, and 20, and the allowance of Claims 2, 7, 13, and 20. Additionally, Claim 2 is not anticipated by Cheng for additional reasons, which are discussed in further detail below.

Claim 2

The Office Action asserts that Cheng teaches generating output of coordinates corresponding to displaying the mouse cursor image on a computer display at those coordinates to read on the claim recitation of "displaying an enhanced mouse cursor image on the computer display." Applicants respectfully disagree. Since Cheng fails to teach displaying a mouse cursor image at each additional determined mouse cursor location on the generated mouse path between the actual current and the actual previous mouse cursor locations, Cheng would further fail to teach that the displayed mouse cursor image is an enhanced mouse cursor image. Accordingly, Cheng fails to teach this additional recitation of Claim 2.

35 U.S.C. § 103(a) Rejections

As noted above, Claims 3, 9, and 16 were rejected as being obvious in view of Cheng and Kensuke. However, applicants assert that Cheng fails to disclose each element of the independent claims from which Claims 3, 9, and 16 depend. Moreover, Kensuke fails to teach or suggest the deficiencies associated with Cheng. Cheng and Kensuke, alone and in combination, fail to disclose or otherwise make obvious each element recited in Claims 3, 9, and 16 when read in combination with their independent claims. Accordingly, applicants submit that Claims 3, 9, and 16 are in condition for allowance in view of Cheng and Kensuke, and request that the 35 U.S.C. § 103(a) rejections be withdrawn and the claims allowed.

As noted above, Claim 11 was rejected as being obvious in view of Cheng and Chang. However, applicants assert that Cheng fails to disclose each element of independent Claim 9 from which Claim 11 depends. Moreover, Chang fails to teach or suggest the deficiencies associated with Cheng. Cheng and Chang, alone and in combination, fail to disclose or otherwise make obvious each element recited in Claim 11, when read in combination with independent Claim 9. Accordingly, applicants submit that Claim 11 is in condition for allowance in view of Cheng and Chang, and request that the 35 U.S.C. § 103(a) rejection be withdrawn and the claim allowed.

CONCLUSION

In view of the amendments and remarks above, applicants respectfully submit that the present application is in condition for allowance. Reconsideration and reexamination of the application and allowance of the claims at an early date are solicited. If the Examiner has any questions or comments concerning the foregoing response, the Examiner is invited to contact the applicants' undersigned attorney at the number below.

Respectfully submitted,

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